Quantum gravity proof (111 pages) online now! Next: Quantum Gravity Demystified, edited by Nika Talbot!

111pages corrected draft paper of all key mathematical models now in internet archive and after (a brief delay) on the https://vixra.org/qgst/ preprint server as paper https://vixra.org/abs/2606.0012

NIGE COOK AND NIKA TALBOT ✨

JUN 03, 2026

3 6 Share

COMPARISON OF OBSERVED WITH PREDICTED MASSES OF ELEMENTARY PARTICLES*

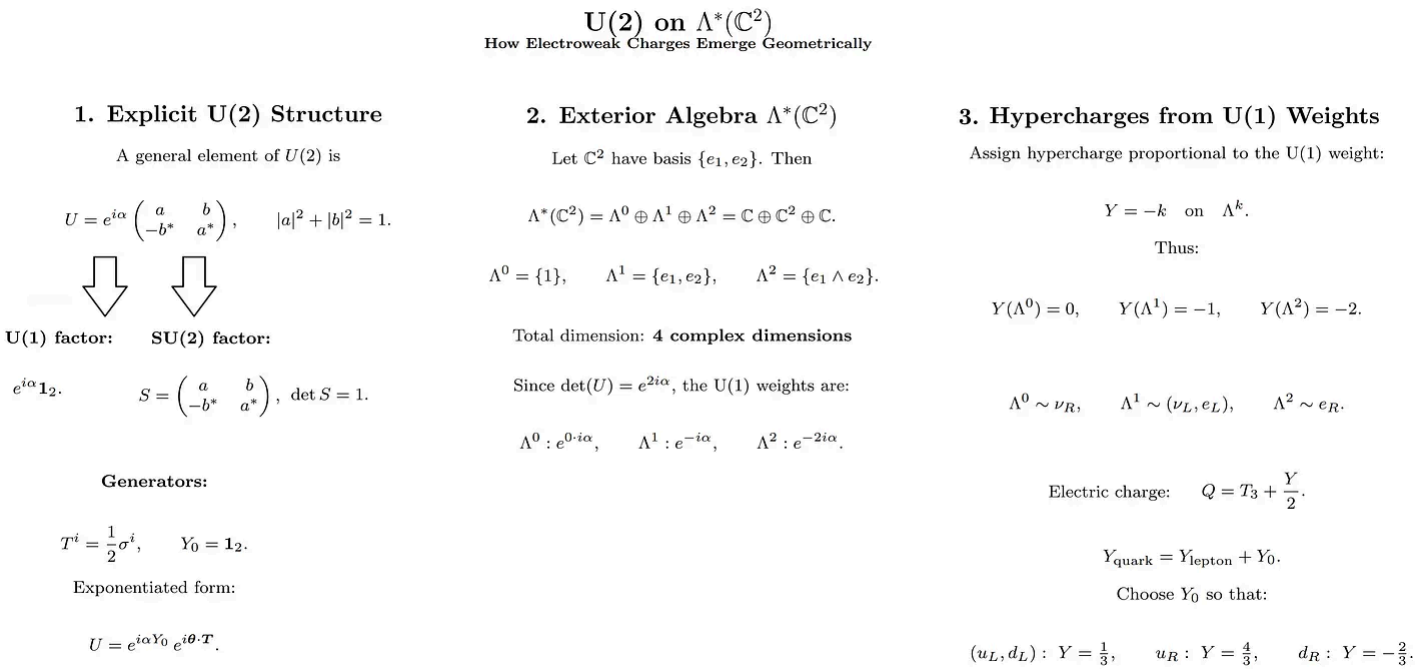
N (number of black hole, gravitationally trapped Z-bosons associated with each core)	n (number of fundamental particles per observable particle core)		
	1	2 (i.e., 2 quarks)	3 (i.e., 3 quarks)
	Leptons	Mesons	Baryons
1	*Electron (stable, 0.511 Mev measured):* $M_z\alpha^2/(1.5*2\pi) = 0.51$ MeV	*Pions (139.57, 134.96 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 140$ MeV	'… I do feel strongly that this [string theory] is nonsense! … I think all this superstring stuff is crazy and is in the wrong direction. … I don't like it that they're not calculating anything. … why are the masses of the various particles such as quarks what they are? All these numbers … have no explanations in these string theories - absolutely none! …' – Richard P. Feynman in Davies & Brown, *Superstrings* 1988, at pages 194-195
2* *Magic number of nuclear physics => High stability	*Muon (Most stable particle after neutron, 105.66 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 105$ Mev		
6		*Kaons (493.67, 497.67 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 490$ Mev	
7		*Eta (548.8 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 560$ Mev	
8* *Magic number of nuclear physics => High stability			*Nucleons (VERY STABLE, 938.28, 939.57 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) \sim 945$ Mev
10			*Lambda & Sigmas (1115.6, 1189.36, 1192.46, 1197.34 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 1155$ Mev
12			*Xi (1314.9, 1321.3 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 1365$ Mev
15			*Omega (1672.5 Mev measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 1680$ Mev
50* *Magic number of nuclear physics => High stability	*Tauon (1784.2 MeV measured):* $M_e n(N+1)/(2\alpha) = 35n(N+1) = 1785$ Mev		

*Only particles with lifetimes above 10^{-23} s are included above. The blank spaces predict other particles. The integer formula is very close, as statistical tests show. (Notice that the periodic table of chemistry did not explain discrepancies from integer masses until mass defect due to binding energy, isotopic composition, and other factors were discovered long after the periodic table was widely accepted. Doubtless there is analogous 'noise' in the measurements due to field interactions.)

Physics preprint server: https://vixra.org/abs/2606.0012 and https://vixra.org/abs/2605.0114

Internet archive: https://archive.org/details/finaltheory/mode/1up The Final Theory: Mechanistic Quantum Field Theory Unifying Matter, Forces, Gravity, and Cosmology

I've written a clear explanation of the early work, now hosted at vixra, Explicit U(2) Matrices and the Emergence of Electroweak Charges: https://vixra.org/abs/2605.0114 (summary shown in the poster diagram below, click on it for larger view).


U(2) on $\Lambda^*(\mathbb{C}^2)$
How Electroweak Charges Emerge Geometrically
1. Explicit U(2) Structure
A general element of $U(2)$ is
$U = e^{i\alpha}\begin{pmatrix} a & b \\ -b^* & a^* \end{pmatrix}, \quad |a|^2 + |b|^2 = 1.$
U(1) factor: $e^{i\alpha}\mathbf{1}_2$.
SU(2) factor: $S = \begin{pmatrix} a & b \\ -b^* & a^* \end{pmatrix}, \det S = 1.$
Generators:
$T^i = \frac{1}{2}\sigma^i, \quad Y_0 = \mathbf{1}_2.$
Exponentiated form:
$U = e^{i\alpha Y_0}\, e^{i\boldsymbol{\theta}\cdot\boldsymbol{T}}.$
2. Exterior Algebra $\Lambda^*(\mathbb{C}^2)$
Let $\mathbb{C}^2$ have basis $\{e_1, e_2\}$. Then
$\Lambda^*(\mathbb{C}^2) = \Lambda^0 \oplus \Lambda^1 \oplus \Lambda^2 = \mathbb{C} \oplus \mathbb{C}^2 \oplus \mathbb{C}.$
$\Lambda^0 = \{1\}, \quad \Lambda^1 = \{e_1, e_2\}, \quad \Lambda^2 = \{e_1 \wedge e_2\}.$
Total dimension: 4 complex dimensions
Since $\det(U) = e^{2i\alpha}$, the U(1) weights are:
$\Lambda^0 : e^{0\cdot i\alpha}, \quad \Lambda^1 : e^{-i\alpha}, \quad \Lambda^2 : e^{-2i\alpha}.$
3. Hypercharges from U(1) Weights
Assign hypercharge proportional to the U(1) weight:
$Y = -k \quad \text{on} \quad \Lambda^k.$
Thus:
$Y(\Lambda^0) = 0, \quad Y(\Lambda^1) = -1, \quad Y(\Lambda^2) = -2.$
$\Lambda^0 \sim \nu_R, \quad \Lambda^1 \sim (\nu_L, e_L), \quad \Lambda^2 \sim e_R.$
Electric charge: $Q = T_3 + \frac{Y}{2}.$
$Y_{\text{quark}} = Y_{\text{lepton}} + Y_0.$
Choose Y_0 so that:
$(u_L, d_L) : Y = \frac{1}{3}, \quad u_R : Y = \frac{4}{3}, \quad d_R : Y = -\frac{2}{3}.$

The final mathematical difficulties were resolved entirely by a brainstorming session on Tuesday June 2, 2026. Hopefully we're at the top of the mountain now, and the rest is downhill (in a good way, not jumping off in despair!).

The Final Theory selling pitch

We construct a complete quantum field theory in which all observed interactions - electromagnetic, weak, strong, gravitational, and cosmological - arise from a single mechanistic principle: energy conservation in vacuum polarization. The theory replaces the ad hoc structure of the Standard Model and the geometric assumptions of general relativity with a unified framework based on the group chain SO(3, 3) ~ SU(4) ⊃ SU(3) × U(1)G ⊃ U(2) ⊃ SU(2) × U(1)Y

This appears wrong, but see the discussion in depth in the paper on the entire replacement of Lorentzian signature geometry with Euclidean, which enables us to write SO(3,3) in place of SO(6), whereas conventionally in pre quantum gravity geometry, they have different signatures and aren't compatible in this way. The removal of Wick rotation and Lorentzian transformations, not to mention curved spacetime which is absurdly the fake news basis for false spin-2 graviton wave theory, is due to the existence in quantum fields of a physical mechanism for length contraction in the direction of acceleration, and similarly for time dilation, as proved in detail. Thus, the mathematical structures of physics are simplified by the new physical dynamics which replaces much of the complexity with simplicity and dynamics!

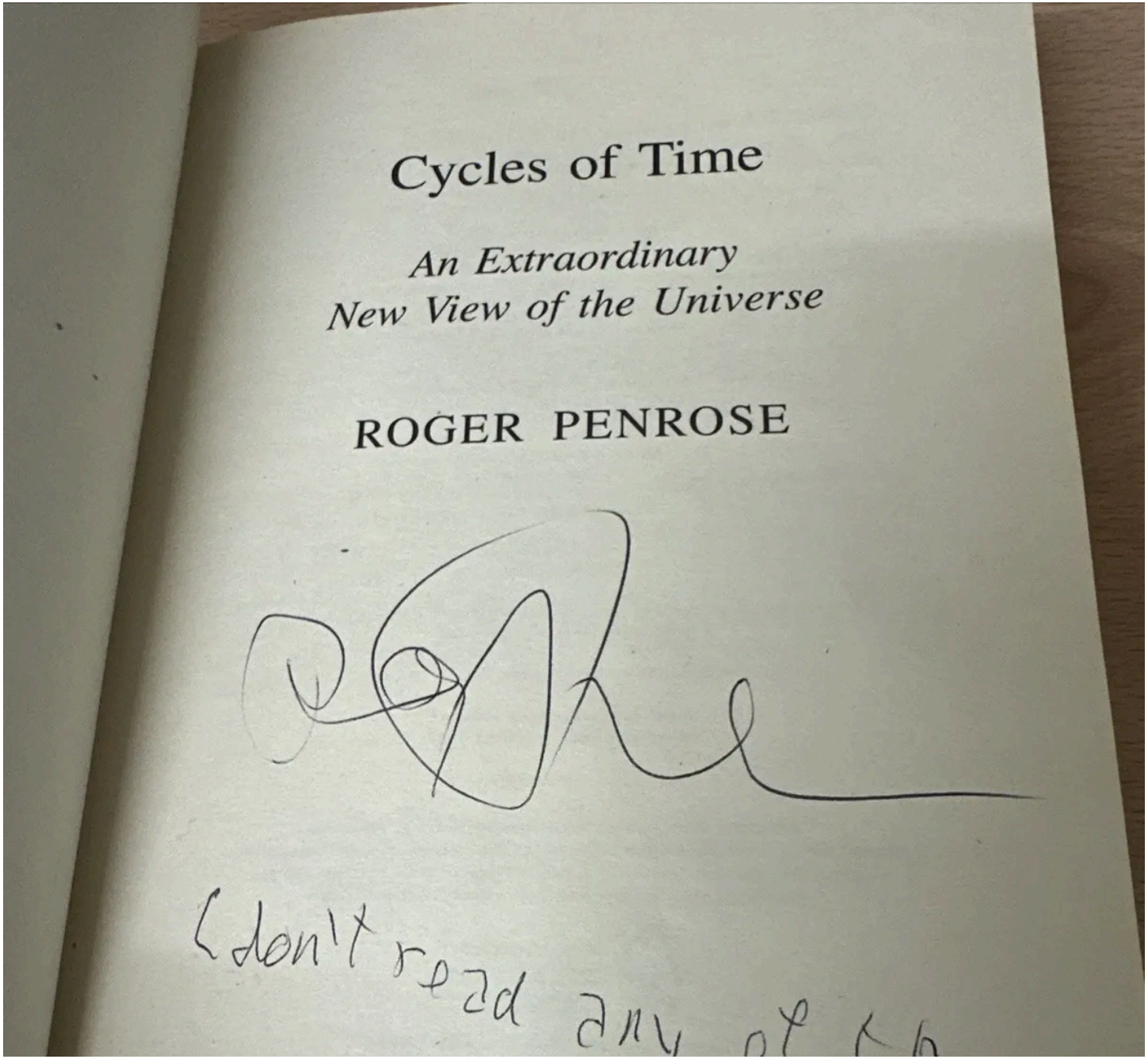
Matter representations, gauge charges, running couplings, particle masses, gravity, and dark energy all emerge from this structure without arbitrary parameters. This

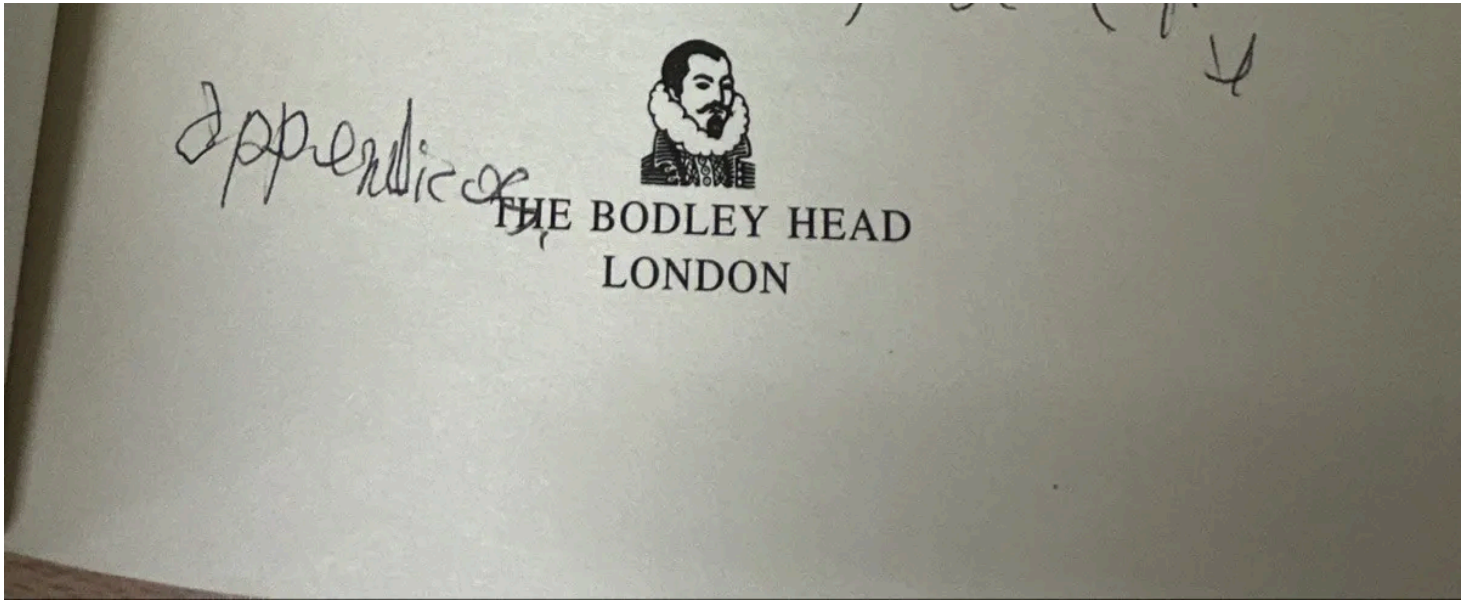
paper is a new presentation of the ideas in vixra paper 1111.0111 dated 2011, with updates, a few corrections, and further development. That earlier paper should still be consulted for further references, graphics and details documenting the origins of the various nascent ideas.

Dr Woit, a quantum field theorist in Columbia University maths department who runs the string fraud exposing blog Not Even Wrong, has recently pursued a twistor-based unification programme in which Euclidean geometry plays a central role, together with a carefully defined Wick rotation between Lorentzian and Euclidean signatures that preserves a chiral spinor structure. In particular, his construction of a "right-handed spacetime" is designed to resolve technical issues in the analytic continuation of Weyl spinors, ensuring that the Standard Model chiral asymmetry can be formulated consistently across signatures. In The Final Theory, by contrast, Euclidean SO(6) geometry is taken as fundamental and relativistic phenomena are treated as emergent dynamical effects of vacuum polarization on bound states, rather than as consequences of a Lorentzian spacetime metric.

From this perspective the detailed Lorentzian–Euclidean spinor dictionary becomes a representational choice rather than a physical necessity: the gauge-chain $SU(4) \supset SU(3) \times U(1)_G \supset U(2) \supset SU(2) \times U(1)_Y$ and the associated chiral structure are constructed directly in the Euclidean framework, with Lorentzian behaviour arising from the dynamics rather than from the signature. Basically, Dr Woit has been worrying about

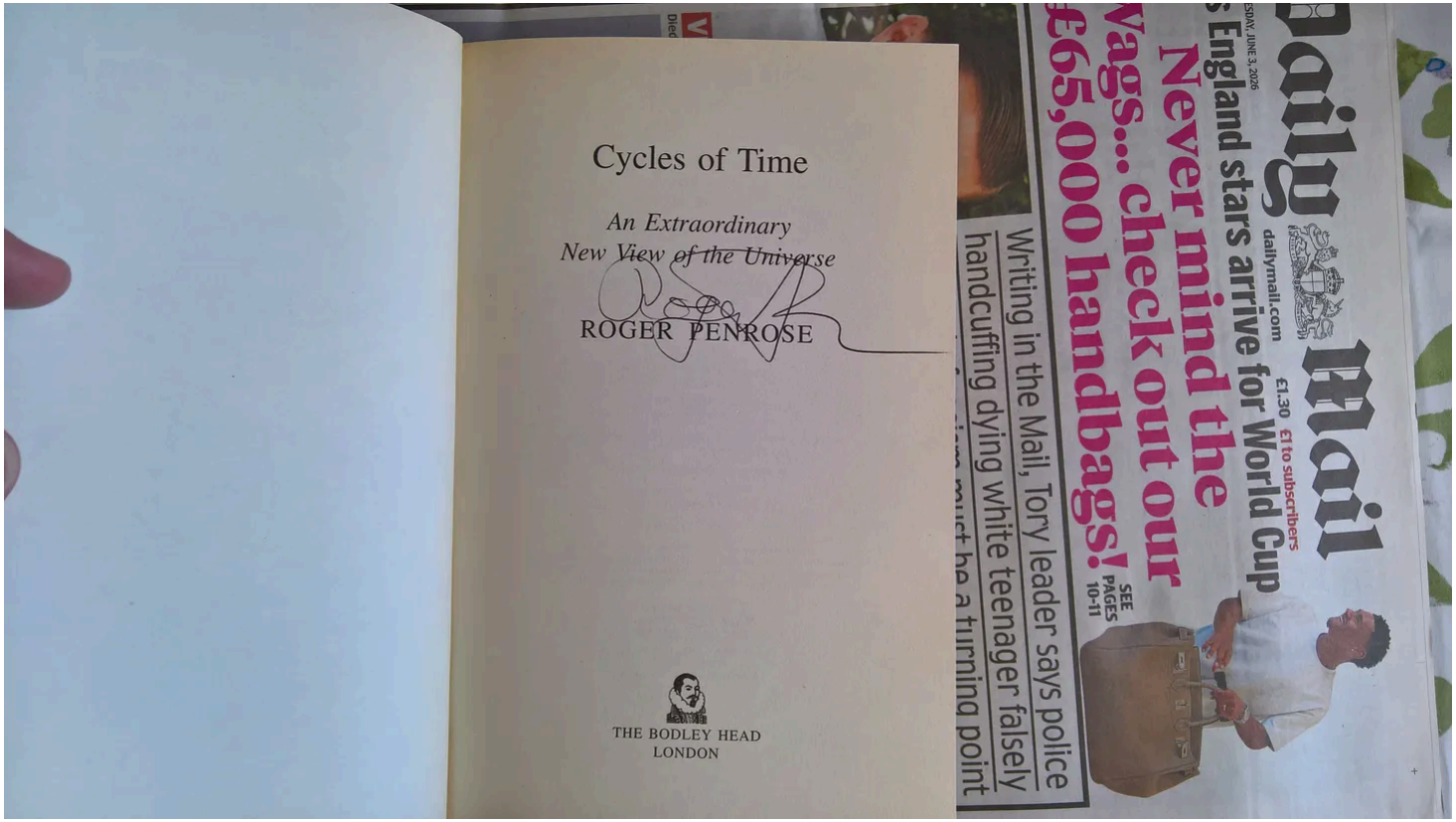
explaining fairies in mainstream dogma (a hybrid of signatures connected by Wick rotation). Likewise, string theory seeks to explain fairies in classical general relativity, namely its falsified claim that the quanta of gravitation are spin-2. Beware the methodology of assuming that 100% of standard dogma is correct and that reality must therefore encompass the fairies of classical field theory.

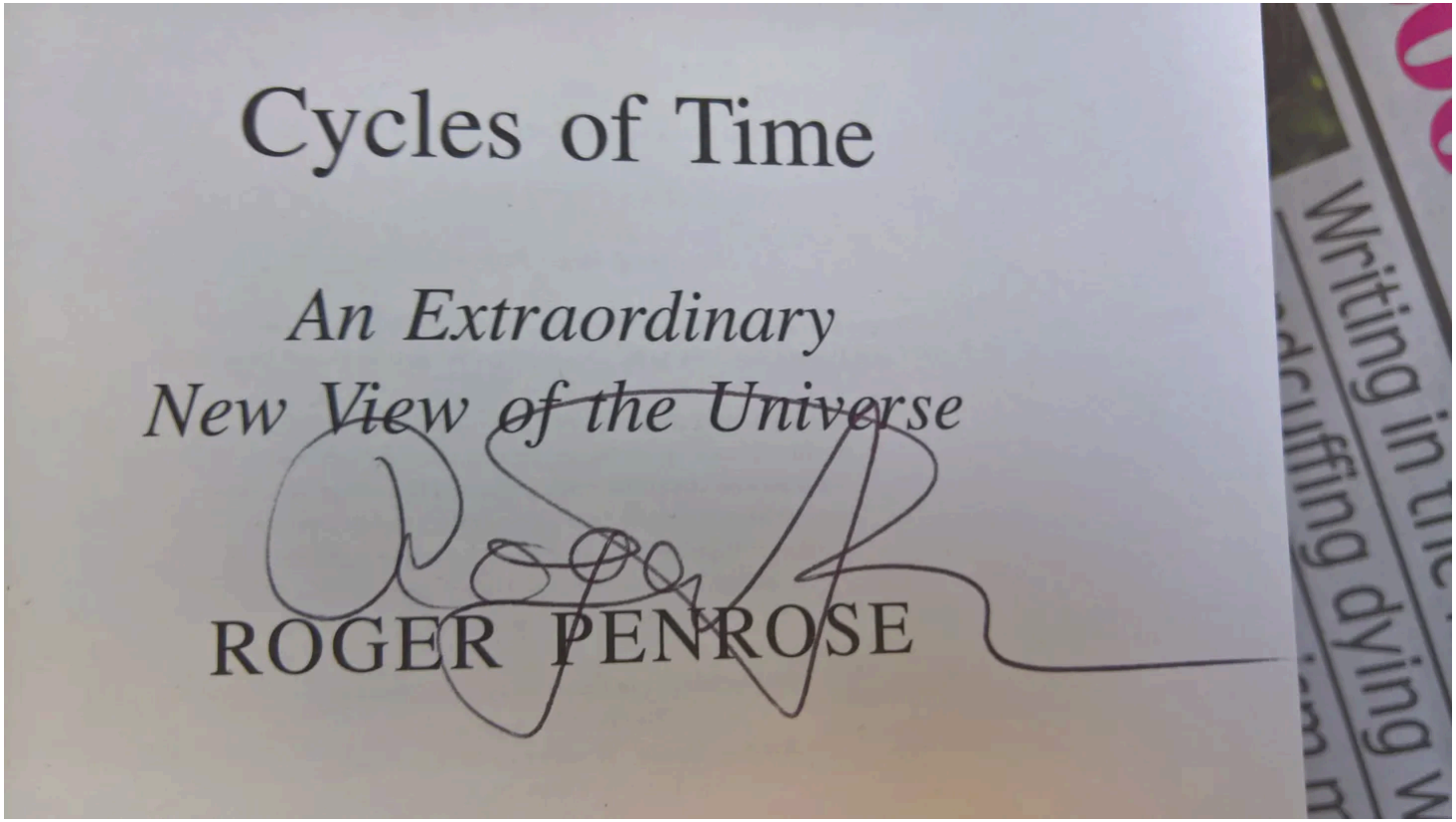

Cycles of Time
An Extraordinary
New View of the Universe
ROGER PENROSE



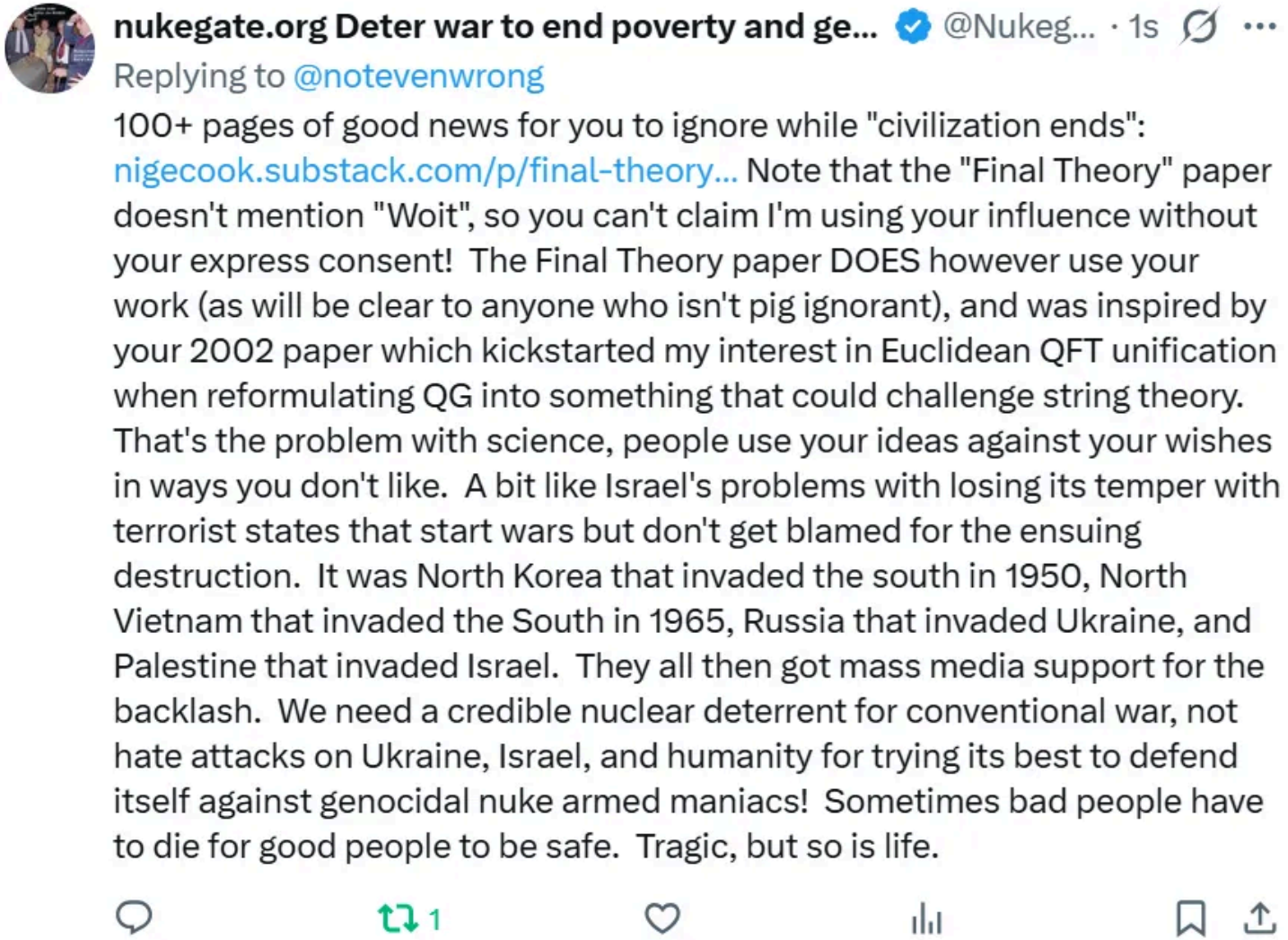
Above (update, Friday June 5, 2026): I have just received some fairly recent information about Sir Roger Penrose's *Cycles of Time* theory, from the seller of this signed and annotated copy above on ebay - item 389812272609 - who has kindly given me information from the discussion he had with Penrose when he met him on 11th December, 2025, in the common room of the Mathematics (Andrew Wiles building) department at Oxford university during the Christmas party. I messaged the seller: "Why did Penrose write "don't read any of the appendices"! Do they have errors?" Seller's reply: "… he made some predictions, which are different now that he's been doing data analysis. … he wanted to write a second part … But Penrose is very very old now I don't know how he'd be able to do this."

So this is evidence that Penrose doesn't have a lot of confidence in the analysis given in that book anymore! For verification of Penrose's signature, compare that above from 2025 to his signature from 2010, on my own copy of *Cycles of Time* (below):





Dr Woit is off in la-la Marxist land again, sadly, with an Israel-hating post entitled End of Civilization News, so is unlikely to support someone who wants to end war to end poverty!


nukegate.org Deter war to end poverty and ge... @Nukeg... · 1s
Replying to @notevenwrong
100+ pages of good news for you to ignore while "civilization ends": nigecook.substack.com/p/final-theory... Note that the "Final Theory" paper doesn't mention "Woit", so you can't claim I'm using your influence without your express consent! The Final Theory paper DOES however use your work (as will be clear to anyone who isn't pig ignorant), and was inspired by your 2002 paper which kickstarted my interest in Euclidean QFT unification when reformulating QG into something that could challenge string theory. That's the problem with science, people use your ideas against your wishes in ways you don't like. A bit like Israel's problems with losing its temper with terrorist states that start wars but don't get blamed for the ensuing destruction. It was North Korea that invaded the south in 1950, North Vietnam that invaded the South in 1965, Russia that invaded Ukraine, and Palestine that invaded Israel. They all then got mass media support for the backlash. We need a credible nuclear deterrent for conventional war, not hate attacks on Ukraine, Israel, and humanity for trying its best to defend itself against genocidal nuke armed maniacs! Sometimes bad people have to die for good people to be safe. Tragic, but so is life.
1

Update (June 3, 2026, 12:41pm London time): Dr Peter Woit's latest *Not Even Wrong* blog post is either offline, taken down, or his Columbia Uni math dept server is simply overloaded, but don't worry, it's backed up on the wayback machine (internet archive)

for your reference:
https://web.archive.org/web/20260603050739/https://www.math.columbia.edu/~woit/wordpress/?p=15705

nukegate.org Deter war to end poverty and genocide
@Nukegate
The deranged Marxist left has caused all the worst wars of history. Stalin's August 1939 secret pact with Hitler to invade Poland, led to WWII, 40 million dead. North Korea's invasion of South Korea killed up to 3 million. Vietcong attacks on South Vietnam led similar casualties. And the ultra left "anti-nuclear proliferation disaster" Marxist front liars motivated the Iraq war to stop Saddam getting WMD's when cheap civil defense and ABM would have negated Saddam's limited nuclear threat at a fraction of the cost and ZERO body count!!!! It's not Trump who is deranged! He just wants to end the terrorism and wars that lying mainstream media are determined to spread, to escalate, and to encourage.
10:47 AM · Apr 19, 2026 · 118 Views
2
4
1

Update (June 5, 2026): Dr Woit's latest post, about Andreas Floer (just published at Not Even Wrong) links back to his 2012 "25 Years of Topological Quantum Field Theory", which goes on about our enemy, string theorist Edward Witten's work in quantum field theory:

"An inspiration for Floer had been Witten's ground-breaking paper "Supersymmetry and Morse Theory", which dealt with the relationship between Morse theory and some supersymmetric quantum mechanics models. … conjectural QFTs would have Floer homology as their ground states and would turn out to be the basic examples of TQFTs. After repeated prodding from Atiyah, Witten a year later produced such theories as twisted N=2 supersymmetric QFTs: a sigma model for the symplectic manifold case, and a supersymmetric Yang-Mills theory for the 4d case. In his final remarks, Atiyah raised the issue of knot invariants and the Jones polynomial, suggesting that this too would have a QFT interpretation, something that came to fruition a couple years later with Witten's Chern-Simons theory that won him a Fields medal. Witten was at the talk, and I recall him coming down to the podium to ask Atiyah some questions about the Jones polynomial immediately after the lecture.

"The Duke conference was also significant to me for personal reasons. At the time I was a postdoc at the ITP in Stony Brook, looking for a job and trying to figure out my future. It was becoming clear that physics departments didn't want to hear from any young theorists interested in mathematics who weren't doing string theory. … The

Atiyah talk bowled me over, convincing me that the intersection of mathematics and QFT had an exciting future. Getting to know a bit more about the mathematical community showed me it could be a great place to work, in many ways much more welcoming and open to new ideas than the physics community.

"... I think I may have missed Witten's talk, since I don't remember it, but his contribution to the conference proceedings is about how to abstractly think about the theory of 2-d free fermions, in a form that makes sense on an arbitrary curve. A few weeks later (June 23), his amazing paper Quantum Field Theory, Grassmanians and Algebraic Curves was submitted to *Communications in Mathematical Physics*. If I had to point to a paper that truly looks like 21st century work that fell by accident into the 20th century, this would be it. It gives some strikingly different ways of thinking about QFT in 2d, including tantalizing connections to the structures ("automorphic representations") that show up in Langlands theory, and has provided inspiration to many people over the years, including the geometric Langlands program. Atiyah's lecture pointed to new ideas relating QFT to cutting edge geometry and topology, ideas that quickly led to lots of progress, while Witten's ideas related QFT to representation theory and Langlands theory, in ways that we still have yet to fathom."

The 72 pages long "amazing" Witten paper, as Woit calls it, "Quantum Field Theory, Grassmanians and Algebraic Curves" addresses quantum field theory on Riemann surfaces, Ward identities (QFT Noether theorems), and Clifford algebras. It achieves

one thing, like string theory, in my humble opinion: turns Witten into a cult figure with the power to block publication of work which goes places.

Update (8 June 2026): Woit himself admits that Witten hasn't solved the basics of QFT in his latest post at Not Even Wrong, *The First AI QFT Textbook,* where he states, in passing: "For a QFT textbook, a big set of issues is the unsolved problem of what the best way to think about QFT really is. Just going out to the current literature, grabbing what is there and then trying to rework it as a textbook/monograph, results in a huge, undigested mass of various inconsistent ways of thinking."

Why on earth Woit worships Witten's drivel, I don't know. If either wants the correct approach to QFT, start here. Maybe this is a good time to stop reading his blog, since he makes an "elitist" virtue of ignoring the facts. His blog ironically, is now a depressingly drivel based hype organ for string theory while simultaneously suppressing the alternatives to string theory which are the only route available to really debunk string theory. Similarly, it is ironic but also sick, that fake "anti-war" disarmament and arms control scams campaign against the only means to end war, credible nuclear deterrence. Everyone can see such Emperor's aren't well dressed, but pretends otherwise, for fear of the repercussions of telling them off.

At least, that's an optimistic explanation for why war mongering bigots who lie that they are "anti-war" or "scientific" are so worshipped by the mass media. The mass media must be fashionable or go out of business, so it must consist of laggards, which

means being bigoted towards innovations, until their customers demand otherwise (by which time the innovators are dead, and hell has frozen over, so the bigots are safe).

Just to show once more what I mean, here's the only "feedback" Dr Woit has ever given (for the *full* text of the lengthy lying crap PRL editors rant about quantum gravity being "non-standard" i.e. non-string theory, as an excuse not to publish decades ago, see vixra here, here, as discussed in detail here, if you can read "You are proposing a very nonstandard mechanism for gravity … Physical Review Letters is not the appropriate journal for such a [lengthy] presentation") which prevented me from doing a PhD:

> **Peter Woit** *says:*
>
> July 7, 2005 at 7:27 pm
>
> I'm tempted to delete the previous comment, but am leaving it since I think that, if accurate, it is interesting to see that the editor of PRL is resorting to an indefensible argument in dealing with nonsense submitted to him (although the "…" may hide a more defensible argument). Please discuss this with the author of this comment on his weblog, not here. I'll be deleting any further comments about this.

Update (9 June 2026):

People continue to try to reason with Dr Woit at Not Even Wrong, to no avail. For example, Gill states sensibly in a comment to End of Civilization News posting: "… The terrible anomaly that there are actions and calls for the violent destruction of the State of Israel (that I remember since my childhood in the 1960s) overshadows the entire tragic situation. (It also overshadows the Columbia encampment.)

"When it comes to Gaza, a positive development is that a ceasefire has been in place since October 2025, largely halting the bloodshed. This ceasefire is part of Trump's 20-point plan, which was accepted by the parties and by many countries. It already led to the release of the Israeli hostages (in exchange with prisoners) and it calls for the removal of the Hamas Governance in Gaza, the restoration of Gaza, the end of violence and bloodshed, and for peaceful co-existence.

"There are formidable powers that object to the plan and it may yet prove unrealistic, but overall, in my opinion, it seems like a good plan (and it is also "the only game in town")."

But Dr Woit then responds with fury, alleging that it is genocidal to justify peace plans based on the hard reality that evil racist terrorism must be defeated for once and for all: "… The IDF continues to destroy what is left of Gaza, nothing has been rebuilt. … Netanyahu has publicly announced that the IDF has been ordered to violate the

“ceasefire” by taking 70% of the territory, cleansed of Palestinians, and implied that 100% is the long-term goal.

“Your argument that this is the best possible situation and that the bogus Trump “plan” is a “good plan” is nothing but a justification of ongoing ethnic cleansing and genocide.”

Sorry, Dr Woit, that does it! You just want to hate humanity in the name of utopian fantasy, using EXACTLY the same brand of lying propaganda sophistry you used against my proven prediction of dark energy from quantum gravity in 1996 in your 2005 comment about the editor of PRL continuing to supress it, to defend wicked terrorism enablers, just as you back to stringer Witten for allegedly being a good Marxist, or whatever. I don’t care anymore. I really don’t.

UPDATE 13 JUNE 2026:

Copy of a comment to Thomas White’s substack about the basic problem (Dr Woit has now got a new post up called “Complexifying the Complex” which my comment below should kick into outerspace; but alas I’ve been saying this for decades, ignored):

Groupthink quantum mechanics does that because it’s shortcut using complex space, which actually dates back to mathematician Weyl in his fake news 1918 gauge theory of quantum gravity, which falsely claimed to unify electromagnetism with gravity (or

rather, the metric of Einstein's physically false "curved spacetime" quantum gravity approximation, i.e.. classical general relativity). Weyl "quantized" the metric by setting it proportional to Euler's complex function of X, exp(iX). Although physically plain wrong for gravity (Weyl's unification was debunked by Einstein) it was later in 1926 used by Schroedinger to "explain" Bohr's discrete energy levels in the atom. What all these guys missed is:

(1) the correct relativistic theory is Feynman's path integrals, where exp(iX) is a path amplitude and you have to sum (or integrate) all possible path amplitudes to allow for multipath interference, to get resultant amplitude and

(2) Euler's expression for exp(iX) = (i sin X) + (cos X), and you don't actually need the complex (i) terms at all when you use multipath phase interference! *IT IS EXACTLY LIKE OLD 1960s HF RADIO MULTIPATH INTERFERENCE FOR TRANSATLANTIC COMMUNICATIONS:* the radio waves take *ALL* possible paths, bouncing off the various high electron density layers of the ionosphere (D, E, F layers at altitudes 60-100 km or so). So you can *REPLACE* exp(iX) with cos X, and simply use Euclidean spacetime for quantum field theory and quantum mechanics; a "real" electron is an uncancelled resultant amplitude! It's all simple. But heresy!

UPDATE (15 June 2026):

The peace plan for the Middle East was agreed yesterday, June 14, 2026, on President Trump's 80th Birthday; Dr Woit depressingly responds to a question about his obsession with "Fascist" Jewish "genocide" in Gaza by alleging that he finds that more worthy of blogging and more disturbing that the Holocaust efforts of terrorist states because of what he can see from the window of his Ivory Tower at Columbia University, New York. (Not far from Hitler's excuse for Nazi terrorism in *Mein Kampf*.)

3 Likes

A guest post by

Nika Talbot ✨

80s latchkey kid turned wander woman. Travel journalist exploring longevity + living well 🪩 Raving till the grave ✍️ Bold Types 📍 St Leonards/Ldn

Subscribe to Nika

Discussion about this post

Comments Restacks

Write a comment...

Thomas Alan White Decoding science 2d

Liked by Nige Cook

Welcome although it could be painful to find out your treasured beliefs are faulty? It might be a cold shower to read my articles with quantum in the title. Are you aware that it starts out setting itself outside of science and impossible to test? This is the first sign that it is a false belief. They claim that whenever you try to interact with the wave part or the cloud of the electron it turns into an object so you cannot test this Theory. They love this process in science because what they're doing is 100% wrong! I'd be happy to elaborate if you wish or you could just read some of my devastating articles!

LIKED (1) REPLY SHARE

5 replies by Nige Cook and others

5 more comments...

© 2026 Nige Cook · Privacy · Terms · Collection notice
Substack is the home for great culture